



CHLORFENVINPHOS

CAS # 470-90-6

Agency for Toxic Substances and Disease Registry ToxFAQs

September 1997

This fact sheet answers the most frequently asked health questions (FAQs) about chlorfenvinphos. For more information, call the ATSDR Information Center at 1-888-422-8737. This fact sheet is one in a series of summaries about hazardous substances and their health effects. It's important you understand this information because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.

HIGHLIGHTS: Chlorfenvinphos is an insecticide which is no longer used in the United States. Ingesting chlorfenvinphos results primarily on nervous system effects, such as headaches, blurred vision, weakness, and confusion. Chlorfenvinphos been found in at least 1 of the 1,430 National Priorities List sites identified by the Environmental Protection Agency (EPA).

What is chlorfenvinphos?

(Pronounced klôr fên/ vîn-fôs')

Chlorfenvinphos is an insecticide that is a colorless liquid with a mild odor. It was commonly used until 1991 when all products containing chlorfenvinphos as an active ingredient were canceled in the United States. Commercial preparations commonly sold in stores were usually 90% chlorfenvinphos. Most of the chlorfenvinphos used was in liquid form.

Chlorfenvinphos was widely used to control household pests such as flies, fleas, and mice. The chemical is manufactured and does not occur naturally in the environment. It was sold under common trade names including Birlane®, Dermaton®, Sapercon®, Steladone®, and Supona®.

Use of trade names is for identification only and does not imply endorsement by the Agency for Toxic Substances and Disease Registry, the Public Health Service, or the U.S. Department of Health and Human Services.

What happens to chlorfenvinphos when it enters the environment?

- ☐ Chlorfenvinphos enters the environment from runoff after rainfall and leaching from hazardous waste sites.

- ☐ It may leach into soil and underground water.
- ☐ It may also be found in surface waters from rain.
- ☐ Chlorfenvinphos may move from soil to the air by evaporation.
- ☐ It does not appear to accumulate in plants, fish, or freshwater animals.

How might I be exposed to chlorfenvinphos?

- ☐ The most common way to be exposed is by eating imported agricultural products contaminated with it.
- ☐ Another way to be exposed is by using pharmaceutical products that contain lanolin, a natural grease from sheep's wool (chlorfenvinphos is often used to control flies in animal buildings and can contaminate sheep's wool).
- ☐ If you breathe air or touch soil near a hazardous waste site containing chlorfenvinphos, you could be exposed to it.
- ☐ If you work in the disposal of chlorfenvinphos or its wastes you are most likely to be exposed.

How can chlorfenvinphos affect my health?

The major effect of chlorfenvinphos is on the nervous system. Ingesting large doses may cause nausea and vomit-

ToxFAQs Internet address via WWW is <http://www.atsdr.cdc.gov/toxfaq.html>

ing, abdominal cramps, diarrhea, difficulty in breathing, and fainting.

Lower doses may cause headaches, dizziness, weakness, confusion, runny nose, and inability to see clearly. These symptoms may start within 30-60 minutes and reach their maximum effect after 6-8 hours.

There is no evidence that long-term exposure to small amounts of chlorfenvinphos causes any harmful health effects in people.

It is not known whether chlorfenvinphos can affect reproduction or cause birth defects in people. One animal study reported decreased fertility in rats given chlorfenvinphos in their food, and another study reported that chlorfenvinphos interfered with the development of rats when the pregnant animals were fed chlorfenvinphos.

How likely is chlorfenvinphos to cause cancer?

It is not known whether chlorfenvinphos causes cancer in people.

The Department of Health and Human Services (DHHS), the International Agency for Research on Cancer (IARC), and the EPA have not classified chlorfenvinphos for carcinogenicity.

Is there a medical test to show whether I've been exposed to chlorfenvinphos?

There is a general test that can be used to determine if you have been exposed to a group of insecticides, including chlorfenvinphos. This test measures the activity of an enzyme called acetylcholinesterase in the blood. This test requires only a small amount of blood and can be done in your doctor's office. It does not specifically show exposure to chlorfenvinphos.

Specific tests are available to identify chlorfenvinphos or its breakdown products in your blood, body tissue, and urine. These tests aren't available at most doctors' offices, but can be done at special laboratories that have the right equipment.

Has the federal government made recommendations to protect human health?

The EPA requires that spills or accidental releases into the environment of 500 pounds or more of chlorfenvinphos be reported to the EPA.

The Food and Drug Administration (FDA) has set tolerances for chlorfenvinphos for agricultural products ranging from 0.005 to 0.2 parts chlorfenvinphos per million parts of food (0.005-0.2 ppm).

Glossary

Carcinogenicity: Ability to cause cancer.

CAS: Chemical Abstracts Service.

Fertility: Ability to have children.

Ingest: To eat or drink something.

Insecticide: A substance that kills insects.

Long-term: 365 days or longer.

ppm: Parts per million.

Source of Information

This ToxFAQs information is taken from the 1997 Toxicological Profile for Chlorfenvinphos produced by the Agency for Toxic Substances and Disease Registry, Public Health Service, U.S. Department of Health and Human Services, Public Health Service in Atlanta, GA.

Animal testing is sometimes necessary to find out how toxic substances might harm people and how to treat people who have been exposed. Laws today protect the welfare of research animals and scientists must follow strict guidelines.

Where can I get more information? For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology, 1600 Clifton Road NE, Mailstop E-29, Atlanta, GA 30333. Phone: 1-888-422-8737, FAX: 404-639-6359. ToxFAQs Internet address via WWW is <http://www.atsdr.cdc.gov/toxfaq.html> ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.

